



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/750,903	12/28/2000	Paul Kirkby	476-1981	2728

23644 7590 10/26/2005  
BARNES & THORNBURG, LLP  
P.O. BOX 2786  
CHICAGO, IL 60690-2786

EXAMINER

NGUYEN, HAI V

ART UNIT PAPER NUMBER

2142

DATE MAILED: 10/26/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

09/750,903

**Applicant(s)**

KIRKBY ET AL.

**Examiner**

Hai V. Nguyen

**Art Unit**

2142

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 25 August 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 21-35 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 21-35 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

1. This Office Action is in response to the communication received on 25 August 2005.
2. Claims 21-35 are presented for examination.

#### ***Response to Arguments***

3. Applicant's arguments, filed on 25 August 2005, with respect to the rejection(s) of claim(s) 21, 29, 35 under 35 USC 102(b) rejection have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection as follows:

#### ***Specification***

4. The textual portion of the specification is replete with grammatical and idiomatic errors too numerous to mention specifically. The specification should be revised carefully.
5. The applicant should use this period for response to thoroughly and very closely proof read and review the whole of the application for correct correlation between reference numerals in the textual portion of the Specification and Drawings along with any minor spelling errors, general typographical errors, accuracy, assurance of proper use for Trademarks <sup>TM</sup>, and other legal symbols ®, where required, and clarity of meaning in the Specification, Drawings, and specifically the claims (i.e., provide proper antecedent basis for "the" and "said" within each claim). Minor typographical errors could render a Patent unenforceable and so the applicant is strongly encouraged to aid in this endeavor.

Art Unit: 2142

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 21-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Grover et al. U.S. patent # 6,819,662 (Grover' 662)** in view of **Grover U.S. patent #: 5,848,139 (Grover's 139)**.

1. As to claim 21, Grover's 662, Method For Protecting A Telecommunications Network, discloses a method of controlling admission of a traffic flow to a communications network, the method comprising the steps of:  
sampling an aggregated traffic flow on a network resource to which the traffic flow is to be admitted to obtain a mean bandwidth measurement and a bandwidth variance measurement of said aggregated traffic flow (*Grover's 662, col. 13, line 56 – col. 14, line 57; col. 18, line 18 – col. 19, line 62; col. 21, line 55 – col. 22, line 63; col. 24, line 46 – col. 25, line 67*); However, Grover's 662 does not explicitly disclose determining from said mean bandwidth and variance measurements a price for bandwidth and a separate price for variance. Thus, the artisan would have been motivated to look into the related network management art for potential methods and systems for implementing determining from said mean bandwidth and variance measurements a price for bandwidth and a separate price for variance.

Art Unit: 2142

In the same field of endeavor, Grover's 139, Telecommunication Traffic Pricing Control System, discloses, in analogous art, that *"a price controller having as input the slack capacity signal for generating a price to subscribers for use of the slack capacity by delay tolerant calls; and first subscriber agent responsive to the price set by the price controller for generating a request for service to the local access switch for a delay tolerant call when the price for the delay tolerant call meets conditions set by the subscriber. Preferably, the price controller implements a pricing strategy that is dependent on past changes in telecommunications traffic volume on the trunk group and past changes in price of delay tolerant calls, and preferably implements a set of fuzzy logic rules. The subscriber agent may aggregate data from plural other subscriber agents, and store it in a storage system."* (col. 2, lines 14-38).

Accordingly, it would have been obvious to one of ordinary skill in the networking management art at the time the invention was made to have incorporated Grover's 139's teachings of pricing controlling (*Grover's 139, col. 2, lines 14-38*) with the teachings of Grover's 662, for the purpose of *offering special price promotions and feedback from the service manager may provide service volumes and pricing back to the computer for monitoring the service* (*Grover's 139, col. 10, lines 58-63*).

Grover's 662-Grover's 139 discloses sampling the traffic flow to be admitted to the network resource to measure its mean bandwidth and variance (*Grover's 139, col. 6, line 7 – col. 7, line 60*); and

Art Unit: 2142

Grover's 662-Grover's 139 discloses applying to said traffic flow the separate prices for bandwidth and variance as a means of controlling admission of the traffic flow to the network resource (*Grover's 139, col. 6, line 7 – col. 7, line 60*).

2. As to claim 22, Grover's 662-Grover's 139 discloses, wherein the price for bandwidth is determined as a price for unit bandwidth and the price for variance is determined as a price for unit variance (*Grover's 139, col. 6, line 7 – col. 7, line 60*).

3. As to claim 23, Grover's 662-Grover's 139 discloses, wherein a total price for admission of the traffic flow to the network resource is provided to an admission controller of said traffic flow, said total price comprising the sum of the following products: i) the measured mean bandwidth of the traffic flow times the price per unit bandwidth for using the network resource; and ii) the variance of the traffic flow times the price per unit variance for using the network resource (*Grover's 139, col. 6, line 7 – col. 7, line 60*).

4. As to claim 24, Grover's 662-Grover's 139 discloses, wherein an admission controller associated with the traffic flow regulates at least one of the mean bandwidth and variance of said traffic flow (*Grover's 139, col. 6, line 7 – col. 7, line 60*).

5. As to claim 25, Grover's 662-Grover's 139 discloses, wherein said admission controller comprises an ingress controller in an edge node of the communications network (*Grover's 662, col. 13, line 56 – col. 14, line 57; col. 18, line 18 – col. 19, line 62; col. 21, line 55 – col. 22, line 63; col. 24, line 46 – col. 25, line 67*).

6. As to claim 26, Grover's 662-Grover's 139 discloses, wherein respective maximum control limits are defined for both the mean bandwidth and bandwidth

Art Unit: 2142

variance components of the aggregated traffic flow on the network resource (*Grover's 662, col. 13, line 56 – col. 14, line 57; col. 18, line 18 – col. 19, line 62; col. 21, line 55 – col. 22, line 63; col. 24, line 46 – col. 25, line 67*), and wherein at least one of said price for bandwidth and price for variance is increased as any of the mean bandwidth and variance measurements of said aggregated traffic flow approaches its respective limit (*Grover's 139, col. 6, line 7 – col. 7, line 60*).

7. As to claim 27, *Grover's 662-Grover's 139* discloses, wherein the determination of the bandwidth price is a function of the difference between the measured mean bandwidth of the aggregated traffic flow and the mean bandwidth control limit, and of the first and second derivatives against time of said function (*Grover's 139, col. 6, line 7 – col. 7, line 60*).

8. As to claim 28, *Grover's 662-Grover's 139* discloses, wherein the determination of the variance price is a function of the difference between the control limit and the sum of the measured variance of the aggregated traffic flow and a standard deviation corresponding to said variance, and of the first and second derivatives against time of said standard deviation (*Grover's 139, col. 6, line 7 – col. 7, line 60; col. 8, line 6 – col. 10, line 45*).

9. Claim 29 is corresponding an apparatus plus function claim of claim 21; therefore, it is rejected under the same rationale as in claim 21.

10. Claims 30-34 are similar limitations of claims 22-23, 26-28; therefore they are rejected under the same rationale as in claims 22-23, 26-28.

Art Unit: 2142

11. Claim 35 is corresponding an apparatus claim of claim 21; therefore, it is rejected under the same rationale as in claim 21.

12. Claim 36 is corresponding a computer readable medium claim of claim 21; therefore, it is rejected under the same rationale as in claim 21.

13. Further references of interest are cited on Form PTO-892, which is an attachment to this action.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hai V. Nguyen whose telephone number is 571-272-3901. The examiner can normally be reached on 6:00-3:30 Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Caldwell can be reached on 571-272-3868. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Hai V. Nguyen  
Examiner  
Art Unit 2142



Hai V. Nguyen  
Primary Examiner  
